Curriculum Vitae

PERSONAL DATA

FULL NAME: Pham Quoc-Viet
PLACE OF BIRTH: Hai Duong, Vietnam
DATE OF BIRTH: April 05, 1990

ADDRESS: 510, ABC Center, Pusan National University, Yangsan Campus, 50612 Korea

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Profiles: Google Scholar, ResearchGate, Publons, Scopus, LinkedIn, and ORCID

EDUCATION

Aug. 2017 Doctor of Engineering in Telecommunications, Inje University, Kimhae, Korea

Thesis: "Fair and Energy-Efficient Resource Allocation Optimization in Wireless Networks"

Advisor: Prof. Won-Joo HWANG

Prize: Best Ph.D. Dissertation, Ranking #1 in Engineering

Aug. 2015 Master of Science in Telecommunications, Inje University, Kimhae, Korea

Thesis: "Multi-Timescale Cross-Layer Design in Wireless Multihop Networks"

Advisor: Prof. Won-Joo Hwang

Aug. 2013 Bachelor of Science in Electronics and Telecommunications,

Hanoi University of Science and Technology, Hanoi, Vietnam

Thesis: "Building an Observational Data Processing and Archiving Center for Automatic

Water Level Gathering and Alarming System" (in Vietnamese)

Advisor: Prof. Van-Duc Nguyen

ACADEMIC EXPERIENCE

*JAN. 2023 - CURRENT Assistant Professor,

School of Computer Science and Statistics, Trinity College Dublin,

The University of Dublin, Republic of Ireland

JAN. 2020 - CURRENT Research Professor,

Korean Southeast Center for the 4th Industrial Revolution Leader Education,

Pusan National University, Korea

MAR. 2018 - DEC. 2019 Research Professor,

ICT Convergence Center, Changwon National University/Inje University, Korea

SEP. 2017 - FEB. 2018 Post-Doctoral Research Fellow,

Department of Computer Science and Engineering, Kyung Hee University, Korea

Sep. 2013 - Jun. 2017 Research Assistant,

Department of Information and Communication System, Inje University, Korea

Feb. 2012 - Aug. 2013 Research Assistant, School of Electronics and Telecommunications,

Hanoi University of Science and Technology, Vietnam

VISITING EXPERIENCE

Jan. 2016- Feb. 2016 Tokyo University of Science, Japan, Prof. Mikio Hasegawa

Aug. 2019 - Aug. 2019 Tokyo University of Science, Japan, Prof. Mikio Hasegawa

GRANTS AND PROJECTS

2019 - 2024 Korea NRF Basic Science and Research (500,000,000 KRW)

Principal Investigator (sole PI), Grant NRF-2019R1C1C1006143 Title: *Privacy Enhancing Connected Cars in 5G and Beyond*

2022 - 2024 FDCRGP Grant, Nazarbayev University (\$136,000, 3 years)

Co-Principal Investigator, Grant No. 11022021FD2925

Title: Edge-assisted Activity Recognition using Skeletal Representation and DL for Video Surveillance

2019 - 2024 Korea NRF Basic Science and Research (500,000,000 KRW)

Key Participant, Grant NRF-2019R1I1A3A01060518

Title: Edge Computing in the 5G Ecosystem: Joint 4C Framework and Its Applications

2018 - 2019 Korea NRF Basic Science and Research (25,000,000 KRW), Key Participant

Project in collaboration with The University of Sydney, Grant NRF-2018K2A9A1A01090540 Title: Low Overhead Channel Access for 5G Mobile Communications in Large-Scale IoT Networks

2020 - 2027 **Brain Korea (BK) 21** (549,825,000 KRW/year), Participant, Pusan National University, Korean Southeast Center for the 4th Industrial Revolution Leader Education

Awards and Recognition

- Award for outstanding contributions and research excellence, Minister of Education (Korea), 2021.
- Golden globe award 2021 for young Vietnamese scientists, Ministry of Science and Technology, 2021.
- Top reviewer award, IEEE Transactions on Vehicular Technology, 2020.
- Best Ph.D. dissertation (ranking #1), Inje University, 2017.
- Leadership and scientific publication scholarship, Inje University, 2015-2016.
- Best paper award, KMMS 2014, JKCCS 2016, KJCCS 2020, KICS 2021.
- Prize for excellent students, Vietnamese Students' Association in Korea (VSAK), 2015.
- University scholarship for excellent students, HUST, 2010-2013.

Mentoring and Teaching Experience

Assistant Lecturer, Pusan National University, 2021

1. **AI for NextG networks** (Winter 2021, graduate course): The students learn how to apply different AI techniques (e.g., machine, deep, federated, and reinforcement learning) for NextG networks, and how NextG wireless can help to improve the performance of AI and deployment of AI services.

Adjunct Lecturer, Inje University, 2018 - 2019

1. **Convex optimization** (Fall 2018, graduate course): This course focuses on the fundamentals of convex functions and problem formulation and optimization. Further, this course is also a prerequisite for advanced courses, such as game theory, artificial intelligence, and machine learning.

- 2. **Game theory in wireless and communication networks** (Spring 2019, graduate course): This course equips the students with promising mathematical tools (e.g., cooperative games, coalitional games, and Stackelberg games) to solve problems in wireless and communication networks from the economics perspectives.
- 3. **Machine learning in wireless and communication networks** (Fall 2019, graduate course): *This course delivers the fundamental concepts of machine learning (supervised and unsupervised learning) and its applications to future wireless networks and Internet-of-Things systems.*

Teaching Assistant, Inje University, 2016 - 2017

- 1. Introduction to Android Programming (Fall 2016, undergraduate course): Responsible for preparation of teaching materials, assignments, term projects, and labs.
- 2. Data and Computer Communications (Fall 2016, Spring 2017, Fall 2017, undergraduate course): Responsible for preparation of teaching materials, term projects, and labs.

Mentoring Assistant, Hanoi University of Science and Technology, 2012

1. Project II (Fall 2012, undergraduate course): Worked as a senior student and guided 4th-year undergraduate students on programming skills and testbed designs.

SUPERVISION

Doctoral Students

- Le Thi Mai [Pusan National University, 2021/03-Present] *Topic*: wireless artificial intelligence (i.e., wireless AI) and deep reinforcement learning (DRL) for aerial access networks
- Nguyen Minh Duong [Pusan National University, 2020/09-Present] *Topic*: deep reinforcement learning and communication-efficient federated learning for very large-scale IoT systems
- Swe Swe Latt [Pusan National University, 2020/09-Present] *Topic*: resource allocation optimization for federated learning in future 6G wireless networks
- Dao Thien Thanh [Pusan National University, 2020/09-Present] *Topic*: deep learning and depth map for UAV and robotic applications
- Nadia Iradukunda [Inje University, 2019/09-Present] *Topic*: Resource allocation optimization for UAV wireless backhaul networks in 5G and beyond
- Daeil Noh [Pusan National University, 2020/09-Present] Topic: Deep learning for UAV recognition
- Sang Min Lee [Pusan National University, 2020/09-Present] *Topic*: communication-efficient federated learning for massive IoT in future 6G wireless networks

Alumnus

- Le Thi Mai [MS, Inje University, 2019/3-2021/2] *Topic*: swarm intelligence for D2D communications
- Hoang Huu Trung [Ph.D., Inje University, 2018/9-2021/2] Topic: ML for mmWave communications
- Vo Ta Hoang [Ph.D., Inje University, 2017/9-2020/2] Topic: resource allocation for MEC systems
- Nguyen Tien Hoang [MS, Inje University, 2017/9-2019/8] Topic: coalitional games for NOMA-MEC
- Maurice Nduwayezu [MS, Inje University, 2017/9-2019/8] Topic: DRL for NOMA-MEC offloading
- Girmay Gebremariam [MS, Inje University, 2017/9-2019/8] *Topic*: swarm intelligence for D2D communications with unlicensed spectrum
- Akmal Azizan [MS, Inje University, 2017/9-2019/8] *Topic*: blockchain for healthcare applications

Professional Activities

Membership

- Member of the IEEE.
- IEEE CTSoc Wireless and Network Technologies (WNT) Technical Committee

Editors

- Scientific Reports [Nature, Q1, IF 4.379, 2022-Present]
- Journal of Network and Computer Applications [Elsevier, Q1, IF 6.281, 2020-Present]
- IEEE Internet of Things Journal [Lead Guest Editor, Aerial Computing for the Internet of Things (IoT), 2021-2022]
- Frontiers in Communications and Networks [Associate Editor, 2020-Present]
- Frontiers in Communications and Networks [Guest Editor, Communication Efficient Edge Learning for Unmanned Aerial Vehicle Networks, 2021]
- Sensors [Guest Editor, Security and Privacy in the Internet of Things (IoT), 2021-2022]

Invited Referee for Journals

- IEEE Letters: IEEE Communications Letters, IEEE Wireless Communications Letters, IEEE Networking Letters.
- IEEE Transactions/Journals: IEEE Transactions on Communications, IEEE Transactions on Wireless Communications, IEEE Transactions on Vehicular Technology, IEEE Transactions on Mobile Computing, IEEE Transactions on Cloud Computing, IEEE Transactions on Signal Processing, IEEE Transactions on Services Computing, IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Computational Social Systems, IEEE Transactions on Green Communications and Networking, IEEE Transactions on Cognitive Communications and Networking, IEEE Transactions on Signal and Information Processing over Networks, IEEE Transactions on Industrial Informatics, IEEE Transactions on Network Science and Engineering, IEEE Internet of Things Journal, IEEE Journal on Selected Areas in Communications, IEEE Journal of Selected Topics in Signal Processing, IEEE Open Journal of the Communications Society, Proceedings of the IEEE.
- IEEE Magazines: IEEE Communications Magazine, IEEE Wireless Communications, IEEE Control Systems Magazine, IEEE Vehicular Technology Magazine, IEEE Computational Intelligence Magazine, IEEE Consumer Electronics Magazine, IEEE Communications Standards Magazine, IEEE Internet Computing.
- Other Journals: ACM Computing Surveys, IEEE Systems Journal, IEEE Access, Computer Networks, Transactions on Emerging Telecommunications Technologies, EURASIP Journal on Wireless Communications and Networking, International Journal of Distributed Sensor Networks, Sensors.

Technical Program Committee

- 2023: IEEE International Conference on Communications (ICC), IEEE Wireless Communications and Networking Conference (WCNC).
- 2022: IEEE International Conference on Communications (ICC), IEEE Wireless Communications and Networking Conference (WCNC).
- 2021: IEEE 94th Vehicular Technology Conference (VTC2021-Fall), IEEE International Smart Cities Conference (ISC2), EAI International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (EAI Qshine), IEEE Global Communications Conference (GLOBECOM).

• 2020: ICCIS, IEEE Wireless Communications and Networking Conference (WCNC), IEEE International Conference on Communications (ICC), IEEE 91st Vehicular Technology Conference (VTC2020-Spring), IEEE Workshop on Security Trust Privacy in Emerging Cyber-Physical Systems (STP-CPS).

TPC Chair/Track Chair

• 2022: 11th EAI International Conference on Game Theory for Networks (EAI GameNets 2022), ICIT 2022, 11th International Symposium on Information and Communication Technology (SoICT 2022), IEEE International Conference on Advanced Technologies for Communications (ATC).

FIELDS OF RESEARCH INTEREST

- Edge Computing: resource optimization, aerial computing, edge of things, and edge AI.
- Future Networks: 6G, Internet of Things, intelligent surfaces, and blockchain.
- Wireless AI: communication-efficient federated learning, sustainable AI, and secure learning.
- AI for Future Networks: deep learning, deep reinforcement learning, and federated learning.

Publications

Books

[1] C. de Alwis, Q.-V. Pham, and M. Liyanage, 6G Frontiers: Towards Future Wireless Systems, Wiley-IEEE Press, Oct. 2022.

Book Chapters

- [1] T. R. Gadekallu, R. Chengoden, N. Victor, T. Huynh-The, P. K. R. Maddikunta, Q.-V. Pham, and P. Hegde, "Blockchain Technologies for Metaverse," in *Metaverse Communication and Computing Networks: Applications, Technologies, and Approaches*, Wiley-IEEE Press, 2023.
- [2] T. Huynh-The, Q.-V. Pham, X.-Q. Pham, T. Do-Duy, and T. R. Gadekallu, "AI and Computer Vision Technologies for Metaverse," in *Metaverse Communication and Computing Networks: Applications, Technologies, and Approaches*, Wiley-IEEE Press, 2023.
- [3] Q.-V. Pham, T. Huynh-The, M. Zeng, Z. Yang, Z. Ding, and W.-J. Hwang, "The Emergence of Aerial Computing: Applications and Challenges," in 6G Wireless: The Communication Paradigm Beyond 2030, CRC Press, 2022.
- [4] M. Zeng, E. Bedeer, X. Li, Q.-V. Pham, O. A. Dobre, P. Fortier, and L. A. Rusch, "IRS-Empowered Wireless Communications: State-of-the-Art, Key Techniques, and Open Issues," in 6G Wireless: The Communication Paradigm Beyond 2030, CRC Press, 2022.
- [5] Z. Yang, Q.-V. Pham, et al., "Federated Learning for Unmanned Aerial Vehicle Communication Networks," in Secure and Digitalized Future Mobility: Shaping the Ground and Air Vehicles Cooperation, CRC Press, 2022.
- [6] Q.-V. Pham, D. C. Nguyen, T. Huynh-The, W.-J. Hwang, and P. N. Pathirana, "Artificial intelligence and big data for COVID-19 and social distancing," in *Enabling Technologies for Social Distancing: Fundamentals, concepts and solutions*, IET Digital Library, 2022.
- [7] D. C. Nguyen, Q.-V. Pham, M. Ding, P. N. Pathirana, and A. Seneviratne, "Security, privacy and blockchain applications in COVID-19 detection and social distancing," in *Enabling Technologies for Social Distancing: Fundamentals, concepts and solutions*, IET Digital Library, 2022.
- [8] N.-N. Dao, N.-T. Dinh, Q.-V. Pham, T. V. Phan, S. Cho, and T. Braun, "Vulnerabilities in fog/edge computing from architectural perspectives," in *Fog/Edge Computing for Security, Privacy, and Applications*, Springer, 2021.

Preprints and Under Review

- [1] S. K. Jagatheesaperumal, Q.-V. Pham, R. Ruby, Z. Yang, C. Xu, and Z. Zhang, "Explainable AI over the Internet of Things: Overview, State-of-the-Art and Future Directions," under revision, *IEEE Open Journal of the Communications Society*.
- [2] T.-H. Vu, Q.-V. Pham, T.-T. Nguyen, D. B. da Costa, and S. Kim, "Enhancing RIS-Aided Two-Way Full-Duplex Communication with Non-Orthogonal Multiple Access," under review, *IEEE Transactions on Vehicular Technology*.
- [3] T.-H. Vu, T.-V. Nguyen, Q.-V. Pham, D. B. da Costa, and S. Kim, "STAR-RIS Enabled Short-Packet NOMA Systems," under review, *IEEE Transactions on Vehicular Technology*.
- [4] X.-T. Nguyen, M.-D. Nguyen, Q.-V. Pham, V.-Q. Do, and W.-J. Hwang, "Resource Allocation for Compression-aided Federated Learning with High Distortion Rate," to be submitted, *IEEE WCNC* 2022.
- [5] N. Iradukunda, Q.-V. Pham, Z. Ding, and W.-J. Hwang, "THz-Enabled UAV Communications using Non-Orthogonal Multiple Access," under revision, *IEEE Transactions on Vehicular Technology*.
- [6] L. N. T. Huynh, Q.-V. Pham, Y. K. Tun, M. D. Hossain, and E.-N. Huh, "Optimization of Task Offloading for Microservice-enhanced Vehicular Edge Computing," under revision, IEEE Transactions on Vehicular Technology.
- [7] M. Le, Q.-V. Pham, Q. V. Do, and W.-J. Hwang, "Resource Allocation in THz-NOMA-enabled UAV Systems Based on Deep Reinforcement Learning," under review, IEEE Transactions on Vehicular Technology.
- [8] Q. V. Do, Q.-V. Pham, and W.-J. Hwang, "QoE-Driven Task Association and Resource Allocation in Aerial-Access Edge Computing Using Deep Reinforcement Learning," under revision, *IEEE Transactions on Communications*.
- [9] T.-H. Vu, T.-V. Nguyen, Q.-V. Pham, D. B. da Costa, and S. Kim, "Hybrid Long- and Short-Packet Based NOMA Systems with Joint Power Allocation and Beamforming Design," under revision, *IEEE Transactions on Vehicular Technology*.
- [10] T. T. Nguyen, C. M. Nguyen, T. Huynh-The, Q.-V. Pham, Q. V. H. Nguyen, I. Razzak, D. V. Le, and V. J. Reddi, "Improving Performance of Deep Reinforcement Learning by Incorporating Human Expertise," under review, *IEEE Transactions on Neural Networks and Learning Systems*.
- [11] N. H. Chu, D. N. Nguyen, H. T. Dinh, Q.-V. Pham, K. T. Phan, W.-J. Hwang, and E. Dutkiewicz, "AI-empowered Joint Communication and Radar Systems with Adaptive Waveform for Autonomous Vehicles," under review, *IEEE Transactions on Vehicular Technology*.
- [12] T. Huynh-The, Q.-V. Pham, X.-Q. Pham, T. T. Nguyen, Z. Han, and D.-S. Kim, "Artificial Intelligence for the Metaverse: A Survey," under revision, *Engineering Applications of Artificial Intelligence*.
- [13] T. R. Gadekallu, T. Huynh-The, W. Wang, G. Yenduri, P. Ranaweera, Q.-V. Pham, D. B. da Costa, and M. Liyanage, "Blockchain for the Metaverse: A Review," under review, *Journal of Information Security and Applications*.
- [14] T.-H. Vu, T.-V. Nguyen, Q.-V. Pham, D. B. da Costa, and S. Kim, "Short-Packet Communications in UAV-Based NOMA Systems under Imperfect CSI and SIC," under review, *IEEE Transactions on Cognitive Communications and Networking*.
- [15] A. Samanta, Q.-V. Pham, N.-N. Dao, A. Muthanna, and S. Cho, "mISO: Incentivizing Demand-Agnostic Microservices for Edge Computing in Mobile IoT Networks," under review, *Transactions on Services Computing*.

- [16] T. R. Gadekallu, **Q.-V. Pham**, T. Huynh-The, S. Bhattacharya, P. K. R. Maddikunta, and M. Liyanage, "Federated Learning for Big Data: A Survey on Opportunities, Applications, and Future Directions," under revision, *ACM Computing Surveys*.
- [17] B. Prabadevi, Q.-V. Pham, M. Liyanage, N. Deepa, Mounik VVSS, S. Reddy, P. K. R. Maddikunta, N. Khare, T. R. Gadekallu, and W.-J. Hwang, "Deep Learning for Intelligent Demand Response and Smart Grids: A Comprehensive Survey," under review, *Computer Science Review*.
- [18] M. Alazab, R. Vinayakumar, S. Srinivasan, Q.-V. Pham, S. Venkatraman, Soman KP, and K. Simran, "Deep Learning for Cyber Security Applications: A Comprehensive Survey," under revision, *IEEE Communications Surveys and Tutorials*.

Journal Articles

- [1] T. Huynh-The, T.-V. Nguyen, Q.-V. Pham, V.-S. Doan, D. B. da Costa, K.-H. Kwon, and D.-S. Kim, "Efficient Convolutional Networks for Robust Automatic Modulation Classification in OFDM-Based Wireless Systems," *IEEE Systems Journals*, in press.
- [2] H. Dang-Ngoc, D. N. Nguyen, K. Ho-Van, H. T. Dinh, E. Dutkiewicz, Q.-V. Pham, and W.-J. Hwang, "Secure Swarm UAV-assisted Communications with Cooperative Friendly Jamming," *IEEE Internet of Things Journal*, in press.
- [3] M.-D. Nguyen, S.-M. Lee, Q.-V. Pham, H. T. Dinh, D. N. Nguyen, and W.-J. Hwang, "HCFL: A High Compression Approach for Communication-Efficient Federated Learning in Very Large Scale IoT Networks," *IEEE Transactions on Mobile Computing*, in press.
- [4] Y. M. Saputra, D. N. Nguyen, H. T. Dinh, Q.-V. Pham, E. Dutkiewicz, and W.-J. Hwang, "Federated Learning Framework with Straggling Mitigation and Privacy-Awareness for AI-based Mobile Application Services," *IEEE Transactions on Mobile Computing*, in press.
- [5] M. Gheisari, A. Javadpour, J. Gao, A. A. Abbasi, Q.-V. Pham, and Y. Liu, "PPDMIT: a lightweight architecture for privacy-preserving data aggregation in the Internet of Things" *Journal of Ambient Intelligence and Humanized Computing*, in press.
- [6] W. Wang, F. H. Memon, Z. Lian, H. Xu, T. R. Gadekallu, Q.-V. Pham, K. Dev, and C. Su, "Secure-Enhanced Federated Learning for AI-Empowered Electric Vehicle Energy Prediction," *IEEE Consumer Electronics Magazine*, in press.
- [7] P. K. R. Maddikunta, Q.-V. Pham, D. C. Nguyen, T. Huynh-The, O. Aouedi, G. Yenduri, S. Bhattacharya, and T. R. Gadekallu, "Incentive techniques for the Internet of Things: A survey," *Journal of Network and Computer Applications*, vol. 206, pp. 103464, Oct. 2022.
- [8] A. S. Sadiq, A. A. Dehkordi, S. Mirjalili, and Q.-V. Pham, "Nonlinear Marine Predator Algorithm: A Cost-effective Optimizer for Fair Power Allocation in NOMA-VLC-B5G Network," Expert Systems with Applications, vol. 203, pp. 117395, Oct. 2022.
- [9] T. T. Nguyen, Q. V. H. Nguyen, D. T. Nguyen, D. T. Nguyen, T. Huynh-The, S. Nahavandi, T. T. Nguyen, Q.-V. Pham, and C. M.Nguyen, "Deep learning for deepfakes creation and detection: A survey," *Computer Vision and Image Understanding*, vol. 233, pp. 103525, Oct. 2022.
- [10] J. Jiang, F. Liu, W. W. Y. Ng, Q. Tang, W. Wang, and Q.-V. Pham, "Dynamic Incremental Ensemble Fuzzy Classifier for Data Streams in Green Internet of Things," *IEEE Transactions on Green Communications and Networking*, vol. 6, no. 3, pp. 1316-1329, Sep. 2022.
- [11] G. Gür, A. Kalla, C. de Alwis, Q.-V. Pham, K.-H. Ngo, M. Liyanage, and P. Porambage, "Integration of ICN and MEC in 5G and Beyond Networks: Mutual Benefits, Use Cases, Challenges, Standardization, and Future Research," *IEEE Open Journal of the Communications Society*, vol. 3, pp. 1382-1412, Aug. 2022.

- [12] C. T. Nguyen, N. V. Huynh, N. H. Chu, Y. M. Saputra, H. T. Dinh, D. N. Nguyen, **Q.-V. Pham**, D. Niyato, E. Dutkiewicz, and W.-J. Hwang, "Transfer Learning for Wireless Networks: A Comprehensive Survey" *Proceedings of the IEEE*, vol. 110, no. 8, pp. 1073-1115, Aug. 2022.
- [13] P. Boopalan, S. P. Ramu, Q.-V. Pham, K. Dev, S. Pandya, P. K. R. Maddikunta, T. R. Gadekallu, and T. Huynh-The, "Fusion of Federated Learning and Industrial Internet of Things: A Survey," *Computer Networks*, vol. 212, pp. 109048, Jul. 2022.
- [14] M. Liyanage, Q.-V. Pham, K. Dev, S. Bhattacharya, P. K. R. Maddikunta, T. R. Gadekallu, and G. Yenduri, "A Survey on Zero Touch Network and Service Management (ZSM) for 5G and Beyond Networks," *Journal of Network and Computer Applications*, vol. 131, pp. 209-226, Jul. 2022.
- [15] Q.-V. Pham, R. Ruby, F. Fang, D. C. Nguyen, Z. Yang, M. Le, Z. Ding, and W.-J. Hwang, "Aerial Computing: A New Computing Paradigm, Applications, and Challenges," *IEEE Internet of Things Journal*, vol. 9, no. 11, pp. 8339-8363, Jun. 2022.
- [16] T. Huynh-The, T.-V. Nguyen, Q.-V. Pham, D. B. da Costa, and D.-S. Kim, "MIMO-OFDM Modulation Classification Using Three-Dimensional Convolutional Network," *IEEE Transactions on Vehicular Technology*, vol. 71, no. 6, pp. 6738-6743, Jun. 2022.
- [17] M. Le, Q.-V. Pham, H.-C. Kim, and W.-J. Hwang, "Enhanced Resource Allocation in D2D Communications with NOMA and Unlicensed Spectrum," *IEEE Systems Journal*, vol. 16, no. 2, pp. 2856-2866, Jun. 2022.
- [18] T. Huynh-The, Q.-V. Pham, T.-V. Nguyen, T. T. Nguyen, D. B. da Costa, and D.-S. Kim, "RanNet: Learning Residual-Attention Structure in CNNs for Automatic Modulation Classification," *IEEE Wireless Communications Letters*, vol. 11, no. 6, pp. 1243-1247, Jun. 2022.
- [19] B. K. Tripathy, P. K. R. Maddikunta, Q.-V. Pham, T. R. Gadekallu, K. Dev, S. Pandya, and B. M. ElHalawany, "Harris Hawk Optimization: A Survey on Variants and Applications," *Computational Intelligence and Neuroscience*, vol. 2022, Jun. 2022.
- [20] N. Deepa, Q.-V. Pham, D. C. Nguyen, S. Bhattacharya, B. Prabadevi, T. R. Gadekallu, P. K. R. Maddikunta, F. Fang, and P. N. Pathirana, "A Survey on Blockchain for Big Data: Approaches, Opportunities, and Future Directions," *Future Generation Computer Systems*, vol. 131, pp 209-226, Jun. 2022.
- [21] Q.-V. Pham, M. Zeng, T. Huynh-The, Z. Han, and W.-J. Hwang, "Aerial Access Networks for Federated Learning: Applications and Challenges," *IEEE Network*, vol. 36, no. 3, pp. 159-166, May/Jun. 2022.
- [22] S. A. Khowaja, K. Dev, P. Khuwaja, Q.-V. Pham, N. M. F. Qureshi, P. Bellavista, and M. Magarini, "IIFNet: A Fusion based Intelligent Service for Noisy Preamble Detection in 6G," *IEEE Network*, vol. 36, no. 3, pp. 48-54, May/Jun. 2022.
- [23] Q.-V. Pham, M. Le, T. Huynh-The, Z. Han, and W.-J. Hwang, "Energy-Efficient Federated Learning over UAV-enabled Wireless Powered Communications," *IEEE Transactions on Vehicular Technology*, vol. 71, no. 5, pp. 4977-4990, May 2022.
- [24] T. Huynh-The, **Q.-V. Pham**, T.-V. Nguyen, D. B. da Costa, and D.-S. Kim, "RF-UAVNet: High-Performance Convolutional Network for RF-based Drone Surveillance Systems," *IEEE Access*, vol. 10, pp. 49696-49707, May 2022.
- [25] M. Alazab, S. P. Ramu, P. Boopalan, P. K. R. Maddikunta, T. R. Gadekallu, and Q.-V. Pham, "Federated Learning for Cybersecurity: Concepts, Challenges and Future Directions," *IEEE Transactions on Industrial Informatics*, vol. 18, no. 5, pp. 3501-3509, May 2022.
- [26] H. Yang, R. Ruby, Q.-V. Pham, and K. Wu, "Aiding a Disaster Spot via Multi-UAV-based IoT Networks: Energy and Mission Completion Time-Aware Trajectory Optimization," *IEEE Internet of Things Journal*, vol. 9, no. 8, pp. 5853-5867, Apr. 2022.

- [27] R. Ruby, Q.-V. Pham, K. Wu, A. A. Heidari, H. Chen, and B. M. ElHalawany, "Enhancing Secrecy Performance of Cooperative NOMA-Based IoT Networks via Multiantenna-Aided Artificial Noise," *IEEE Internet of Things Journal*, vol. 9, no. 7, pp. 5108-5127, Apr. 2022.
- [28] S. K. Sahu, D. P. Mohapatra, J. K. Rout, K. S. Sahoo, Q.-V. Pham, and N.-N. Dao, "A LSTM-FCNN based Multi-class Intrusion Detection using Scalable Framework," *Computers and Electrical Engineering*, vol. 99, no. 5, pp. 107720, Apr. 2022.
- [29] S. P. Ramu, P. Boopalan, Q.-V. Pham, P. K. R. Maddikunta, T. Huynh-The, T. T. Nguyen, M. Alazab, and T. R. Gadekallu, "Federated learning enabled digital twins for smart cities: Concepts, recent advances, and future directions," *Sustainable Cities and Society*, vol. 79, pp. 103663, Apr. 2022.
- [30] D. C. Nguyen, Q.-V. Pham, P. N. Pathirana, M. Ding, A. Seneviratne, J. Lin, O. A. Dobre, and W.-J. Hwang, "Federated Learning for Smart Healthcare: A Survey," *ACM Computing Surveys*, vol. 55, no. 3, pp. 1-37, Apr. 2022.
- [31] B. M. ElHalawany, A. A. A. El-Banna, Q. -V. Pham, K. Wu, and E. M. Mohamed, "Spectrum Sharing in Cognitive-Radio Inspired NOMA Systems under Imperfect SIC and Co-Channel Interference," *IEEE Systems Journal*, vol. 16, no. 1, pp. 1540-1547, Mar. 2022.
- [32] P. K. R. Maddikunta, Q.-V. Pham, B. Prabadevi, N. Deepa, K. Dev, T. R. Gadekallu, R. Ruby, and M. Liyanage, "Industry 5.0: A Survey on Enabling Technologies and Potential Applications," *Journal of Industrial Information Integration*, vol. 26, pp. 100257, Mar. 2022.
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Languages

VIETNAMESE: Mother-tongue

ENGLISH: Fluent

Korean: Basic Knowledge

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